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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/932,286	08/17/2001	Steven B. McGowan	884.516US1	4742

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SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.  
P.O. BOX 2938  
MINNEAPOLIS, MN 55402

EXAMINER

HASHEM, LISA

ART UNIT PAPER NUMBER

2614

DATE MAILED: 08/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

<b>Application No.</b> 09/932,286	<b>Applicant(s)</b> MCGOWAN, STEVEN B.	
<b>Examiner</b> Lisa Hashem	<b>Art Unit</b> 2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1)  Responsive to communication(s) filed on 31 May 2006.
- 2a)  This action is **FINAL**.                      2b)  This action is non-final.
- 3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4)  Claim(s) 1-6 and 34-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5)  Claim(s) \_\_\_\_\_ is/are allowed.
- 6)  Claim(s) 1-6 and 34-40 is/are rejected.
- 7)  Claim(s) \_\_\_\_\_ is/are objected to.
- 8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9)  The specification is objected to by the Examiner.
- 10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a)  All    b)  Some \*    c)  None of:
- Certified copies of the priority documents have been received.
  - Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1)  Notice of References Cited (PTO-892)
- 2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5)  Notice of Informal Patent Application (PTO-152)
- 6)  Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 4-6 and 37-40 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by U.S. Patent No. 5,455,823 by Noreen et al, hereinafter Noreen.

Regarding claim 1, Noreen discloses a sound generation device (Fig. 2) comprising:  
an audio source to generate an audio signal (Fig. 2, 217) (col. 9, lines 41-59);  
a radio frequency (RF) transmitter (Fig. 2, 211), coupled to the audio source (via a data coder and modulator; Fig. 2, 224),  
to transmit an RF carrier signal modulated with the audio signal, the RF carrier signal having a specific carrier frequency (col. 9, lines 41-59; col. 12, line 67; col. 16, lines 47-67);  
and a channel locator controller (Fig. 2, 204) to identify an optimum (e.g. favorable, available) carrier frequency (col. 16, lines 52-61),  
wherein the channel locator controller includes a stored program digital computer (e.g. non-volatile memory),  
the computer to store a database of optimum carrier frequencies arranged by geoposition (col. 8, lines 7-25; col. 12, line 40 – col. 14, line 10; col. 15, line 40 – col. 16, line 9; col. 16, lines 52-61; col. 18, lines 4-32); and

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a geoposition source (e.g. GPS receiver, GPS microchip) coupled to the stored program digital computer to provide a geoposition to the stored program digital computer (col. 4, lines 27-36; col. 13, line 50 p col. 14, line 10; col. 18, lines 4-32; col. 19, line 25 – col. 20, line 14).

Regarding claim 2, the sound generation device recited in claim 1, wherein Noreen further discloses the geoposition source comprises a table or listing stored in one of a programmable read only memory (PROM) device, a cellular phone, a cellular switching center, and an Internet site (col. 18, lines 4-14).

Regarding claim 4, the sound generation device recited in claim 1, wherein Noreen further discloses the sound generation device further comprises one of a cellular phone (e.g. mobile terminal), a GPS (global position system) receiver, a geoposition programming device, a data entry device, and a programmable read only memory (col. 13, lines 54-59; col. 18, lines 4-14).

Regarding claim 5, the sound generation device recited in claim 1, wherein Noreen further discloses the sound generation device further comprises:  
a channel selection circuit (Fig. 2, 223), coupled to the RF transmitter, to select an optimum carrier frequency on which to transmit the RF carrier signal (col. 16, lines 52-61).

Regarding claim 6, the sound generation device recited in claim 1, wherein Noreen further discloses the sound generation device comprises equipment from a group comprising an MP3 (Motion Picture Experts Group, Audio Layer 3) player, a compact disk player, a mini-disk player, a micro-disk player, a digital video disk player, a cassette tape player, a radio, a cellular phone, a handheld computer, a portable computer, a television, a video player, a personal digital

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assistant, an electronic musical instrument, an electronic toy, and a wireless microphone (col. 9, lines 10-24).

Regarding claims 37-40, please see the rejections to claims 1 and 4-6 above, to reject the sound generation device in claims 37-40.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Noreen in view of U.S. Patent Application Publication No. 2001/0049262 by Lehtonen.

Regarding claim 3, the sound generation device recited in claim 1, wherein Noreen discloses an RF transmitter (Fig. 2, 211) to transmit a channel selection signal comprising an optimum carrier frequency.

However, Noreen does not disclose an out-of-band transmitter to transmit a channel selection signal comprising an optimum carrier frequency.

Lehtonen discloses a sound generation device (Fig. 3) comprising:  
an audio source to generate an audio signal (Fig. 3, 27: MP3 Player) (section 0030, line 1 – section 0031, line 6);  
a radio frequency (RF) transmitter (Fig. 3, 22: RF, AER), wirelessly coupled to the audio source, to transmit an RF carrier signal modulated with an audio signal, the RF carrier signal having a specific carrier frequency (section 0035, lines 1-14); and

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a channel locator controller (Fig. 3: BT2) to identify an optimum carrier frequency (e.g. 2.4 GHz), wherein the channel locator controller includes an out-of-band transmitter (Fig. 3: BT2, ANT2) to transmit a channel selection signal comprising an optimum carrier frequency (section 0032, lines 1-6).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the sound generation device of Noreen to include an out-of-band transmitter as taught by Lehtonen. One of ordinary skill in the art would have been lead to make such a modification to provide a sound generation device that includes an additional transmitter to transmit a channel selection signal that can communicate with receivers that can automatically switch to a new transmission frequency of the sound generation device.

5. Claims 34-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noreen in view of Lehtonen.

Regarding claim 34, Noreen discloses a sound generation device (Fig. 2) comprising: an audio source to generate an audio signal (Fig. 2, 217) (col. 9, lines 41-59); a radio frequency (RF) transmitter (Fig. 2, 211), coupled to the audio source (via a data coder and modulator; Fig. 2, 224), to transmit an RF carrier signal modulated with the audio signal, the RF carrier signal having a specific carrier frequency (col. 9, lines 41-59; col. 12, line 67; col. 16, lines 47-67); a channel locator controller (Fig. 2, 204) to identify an available (e.g. at hand, optimum) carrier frequency (col. 16, lines 52-61), wherein the channel locator controller includes an RF receiver (Fig. 2, 215), coupled to the RF transmitter (Fig. 2, 211),

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to receive signals having different carrier frequencies (col. 9, lines 3-9; col. 9, lines 25-39; col. 10, lines 18-23); and

a channel locator circuit (Fig. 2, 223), coupled to the RF receiver,

to identify a carrier frequency below a minimum signal strength (col. 12, lines 40-61; col. 15, lines 40-55; col. 17, lines 17-57); and

the RF transmitter to transmit a channel selection signal comprising an available carrier frequency (col. 8, lines 7-25; col. 12, line 40 – col. 14, line 10; col. 15, line 40 – col. 16, line 9; col. 16, lines 52-61; col. 18, lines 4-32).

Noreen discloses a RF transmitter to transmit a channel selection signal comprising an available carrier frequency. However, Noreen does not disclose an out-of-band transmitter to transmit a channel selection signal comprising an available carrier frequency.

Lehtonen discloses a sound generation device (Fig. 3) comprising:  
an audio source to generate an audio signal (Fig. 3, 27: MP3 Player) (section 0030, line 1 – section 0031, line 6);  
a radio frequency (RF) transmitter (Fig. 3, 22: RF, AER), wirelessly coupled to the audio source, to transmit an RF carrier signal modulated with an audio signal, the RF carrier signal having a specific carrier frequency (section 0035, lines 1-14); and  
a channel locator controller (Fig. 3: BT2) to identify an optimum carrier frequency (e.g. 2.4 GHz), wherein the channel locator controller includes  
an out-of-band transmitter (Fig. 3: BT2, ANT2) to transmit a channel selection signal comprising an optimum carrier frequency (section 0032, lines 1-6).

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It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the sound generation device of Noreen to include an out-of-band transmitter as taught by Lehtonen. One of ordinary skill in the art would have been lead to make such a modification to provide a sound generation device that includes an additional transmitter to transmit a channel selection signal that can communicate with receivers that can automatically switch to a new transmission frequency of the sound generation device.

Regarding claims 35 and 36, please see the rejections of the sound generation device in claims 5 and 6 mentioned above, to reject the sound generation device in claims 35 and 36.

***Response to Arguments***

6. Applicant's arguments, see Amendment, filed 5-31-2006, with respect to the rejection(s) of claim(s) 1-6 and 34-40 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made. Please see all rejection(s) above.

7. The objections of the drawings noted in the Non-Final Action filed on 3-31-2006 are withdrawn.

8. Accordingly, this action is **NON-FINAL**.

***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892 Form.

10. Any response to this action should be mailed to:

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450



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**Or faxed to:**

(571) 273-8300 (for formal communications intended for entry)

**Or call:**

(571) 272-2600 (for customer service assistance)

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lisa Hashem whose telephone number is (571) 272-7542. The examiner can normally be reached on M-F 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang can be reached on (571) 272-7547. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-2600.

12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LH

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July 28, 2006



FAN TSANG  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600